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SAPC-19410
Copy 1 of 6

25X1A [redacted] 16 September 1957

MEMORANDUM FOR: Project Director of Development and Procurement

REFERENCES : A. Memorandum for Project Director, from Mr. A.C. Lundahl, dated 27 Aug 1957 - TCS-1797

25X1A B. Memorandum for Project Director, from Mr. [redacted] dated 26 Aug 1957 - SAPC-18865

25X1A C. Memorandum for Project Director, from Mr. [redacted] dated 30 Aug 1957 - SAPC-18912

1. Could you let me know what has been done about Reference A, or if a decision is still pending on this matter, I would appreciate an indication of the cost involved and the nature and urgency of the requirement.

25X1A 2. I have read Reference B and [redacted] recommendations sound very sensible to me. I would like to discuss this matter with you in order to learn more about the transistorized System I but believe we should not permit any great delay in ordering these items for promptest possible delivery.

3. With respect to Reference C, I remain highly skeptical of the requirement for System III. The decision stands that we will eliminate it completely, and eliminate alternators on the engines unless and until someone proves that there is a real need.

4. Perhaps we better discuss the above items briefly before you act on any of them but the second item in particular may demand a prompt decision.

25X1A [redacted]

Attachments:
Copies # 2 of each ref.

RICHARD M. BISSELL, JR.
Project Director

RMB:djm
1-Addressee
2-Deputy Project Director
3-Director of Operations
4-Pro. Dir. FII
5-Pro. Dir. Chrono 6-Pro. Chrono

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TCS - 1797-57
HTA-OC -72-57
27 August 1957

1 procured for A7 on E.O. 6081 later given to HTautomat
borrowed from A7 & funds on AL-7290
1 procured w/aquatone funds to replace the unit borrowed from 7049.

MEMORANDUM FOR: Project Director, AQUATONE

SUBJECT: Eastman Kodak 70mm viewer for the Tracker Film, Procurement of

1. In direct response to your request for more expeditious reporting of the track, cloud distribution, target coverage and camera operational data, it is considered imperative that at least one Eastman Kodak 70mm viewer be purchased as soon as possible to aid in the accomplishment of this work.

2. HTAUTOMAT can and will continue to support operations in every manner possible as we have in the past. However, it is felt that if this equipment could be provided, it would substantially increase the speed and accuracy of reporting this kind of data which are so vitally needed by operations.

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3. Inquiries have been made through [redacted] to determine the availability of this item. One has been found at Eastman Kodak which can be released on a reimbursable basis on or about 1 September.

4. It is requested that operations procure the Eastman Kodak 70mm viewer as soon as possible.

A. C. LUNDAHL
Chief, HTAUTOMAT

19 Dec 57

This viewer has been at HTA for some time now. Cost: $11,750.00.

LSK

28 AUG 1957

MEMORANDUM FOR: Project Director

SUBJECT : 24-28 Volt D.C. Power Supply for System I

1. No satisfactory power supply exists for System I that can be powered by 24-28 Volt D.C.

2. No vibrator power supply can be built without excessive increase in weight - perhaps 25 pounds.

3. The present state of the art will probably allow a transistorized oscillator type to be built. None have been built for the power requirements (250 watts) of System I. The research and development on this might be rather high. Ramo-Wooldridge would like to do it.

4. Ramo-Wooldridge is building a System I with transistors using a transistorized power supply. This is not too difficult since no tubes are used.

5. Our present System I's are about 5 db below the state of the art. This is due to our having a modified version of an earlier, very poor unit. To re-modify our System I will be likely to lose another 5 db. A 10 db loss means a 3 to 1 loss of range. We can not afford this.

6. It is recommended that we:

a. Purchase transistorized System I's on the FOG production schedule and set aside existing System I's for 400 cycle use. Estimated Cost - $2500 per System if ordered during current production run.

b. Purchase transistorized converter at $275 for Rambo pre-amplifiers. Extra weight is 4.5 pounds. They are available from stock according to the manufacturer.

25X1A [redacted]
Acting MINT Staff Officer

Distribution:
Copy 1 & 2 - Project Director, Copy 3 - [redacted], Copy 4 - [redacted], Copy 5 - MSO, Copy 6 - Project Chrono.
25X1A
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SAFC 18912
Copy 2 of 9

30 August 1957

MEMORANDUM FOR: Project Director

SUBJECT : Technical Deficiencies of System III

REFERENCE : SAFC-18390, dated 9 August 1957. Memorandum from Project Director to [redacted] - Subject: Redesign and Rebuilding of System III 25X1A

1. It is believed that we may be able to obtain the 20 db's needed to make System III a state of the art system by two actions short of a major redesign. These steps are:

a. Use a new antenna. A flight test using the FOG antenna was made on 16 August. The flight test failed due to a fusing problem. [redacted] plans to make the test at a later date. However, the only aircraft equipped with the FOG tail-fin antenna that we plan to use is now in the shop for a fifty-hour overhaul. 25X1A

b. Use broad-band preamplifier in front of System III receiver. A laboratory test of the preamplifier will be made within a week at Ramo-Wooldridge or Stanford University. A quick and dirty check using some equipment at R-W but which is not completely reliable has indicated that 10 dbs. or more will be obtained by this preamplifier.

2. The results of these tests will be submitted as soon as practical perhaps within two weeks. Ten db (10 db) will almost certainly be gained. If 20 dbs. are gained, the range will increase by ten times and give a full line of sight equipment.

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[redacted]
Acting ELINT Staff Officer

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